July 6, 1926. 1,591,558

F. A. PIKE

ADJUSTABLE CONCRETE FORM

Filed Oct. 10, 1925 3 Sheets-Sheet 1

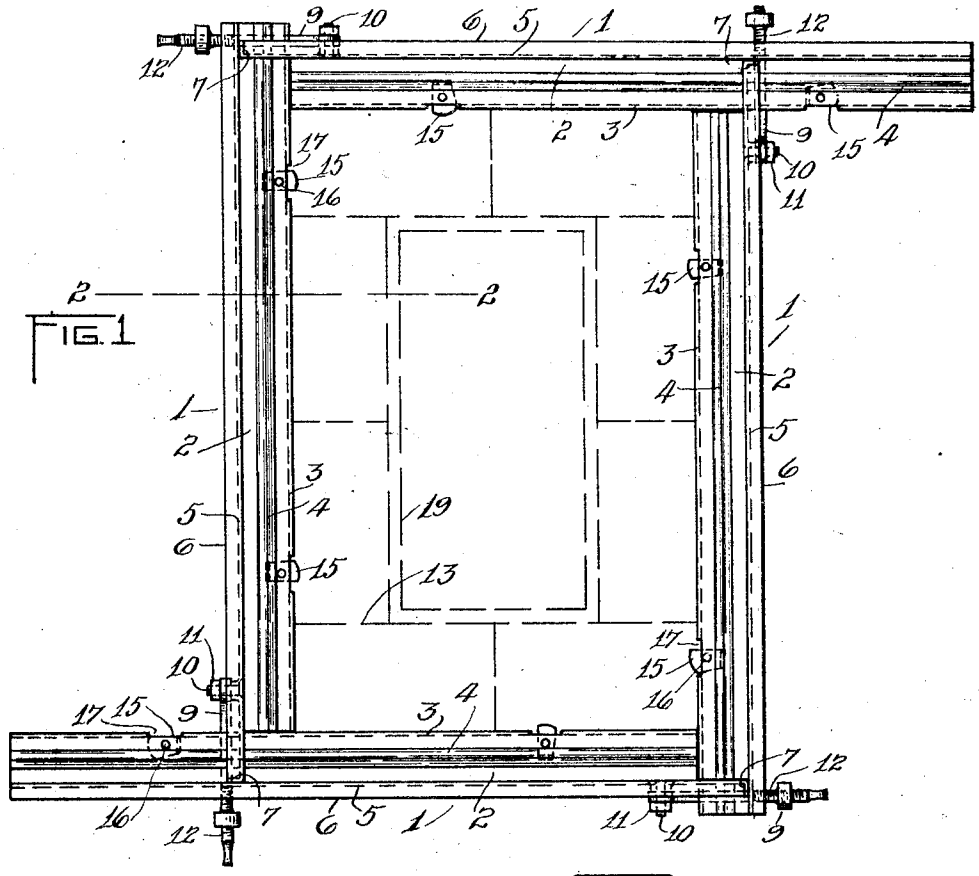


FIG. 1

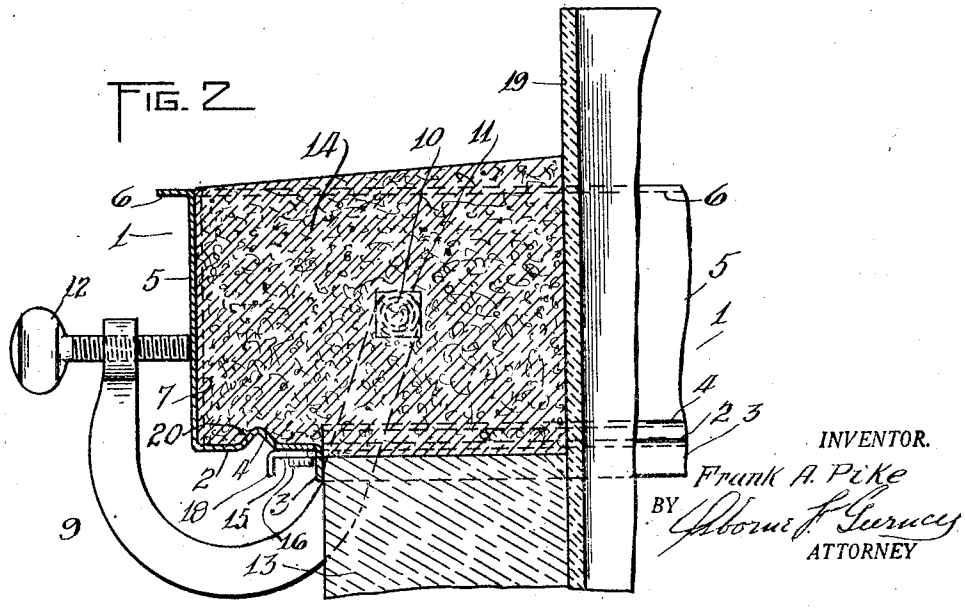


FIG. 2

INVENTOR.
Frank A. Pike
BY Thomas F. Tierney
ATTORNEY

July 6, 1926. 1,591,558

F. A. PIKE

ADJUSTABLE CONCRETE FORM

Filed Oct. 10, 1925 3 Sheets-Sheet 2

FIG. 5

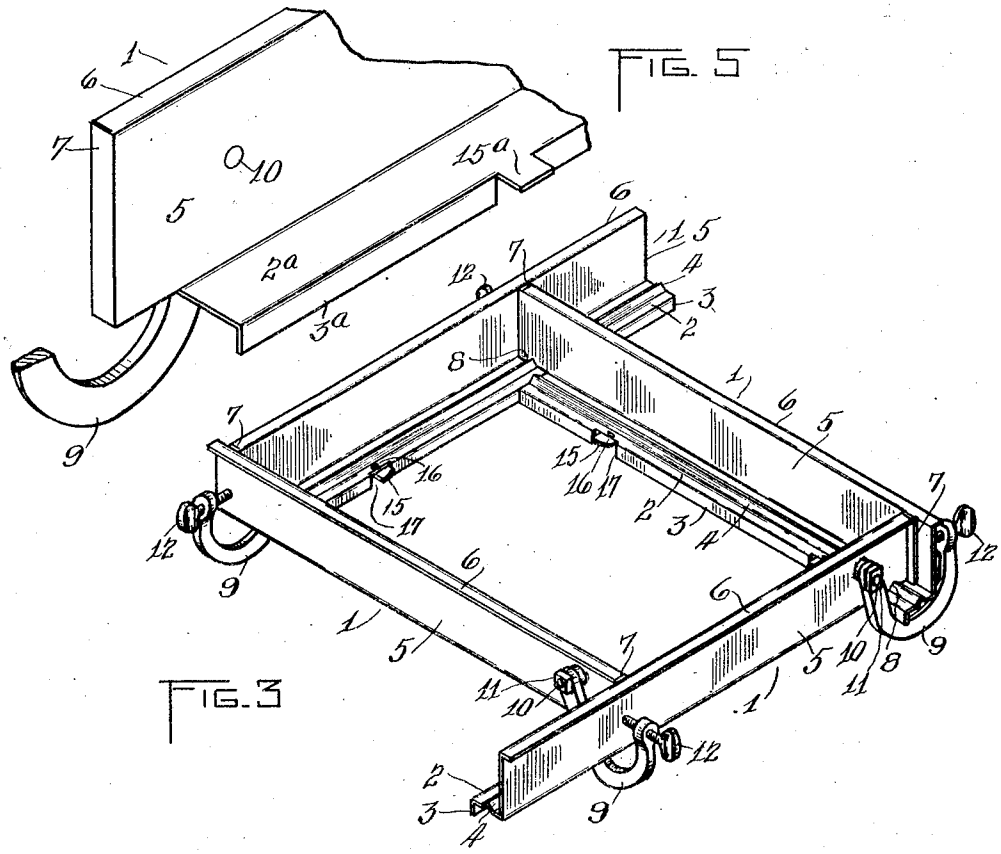


FIG. 3

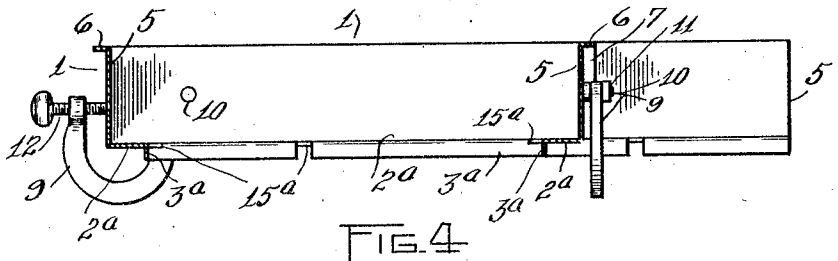


FIG. 4

INVENTOR
Frank A. Pike
BY
Osborne H. Gurney
ATTORNEY

July 6, 1926. 1,591,558

F. A. PIKE

ADJUSTABLE CONCRETE FORM

Filed Oct, 10, 1925 3 Sheets-Sheet 3

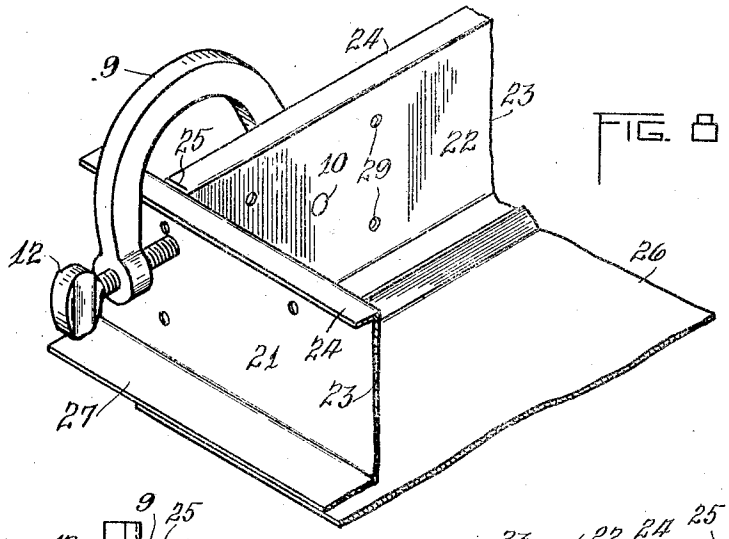


FIG. 8

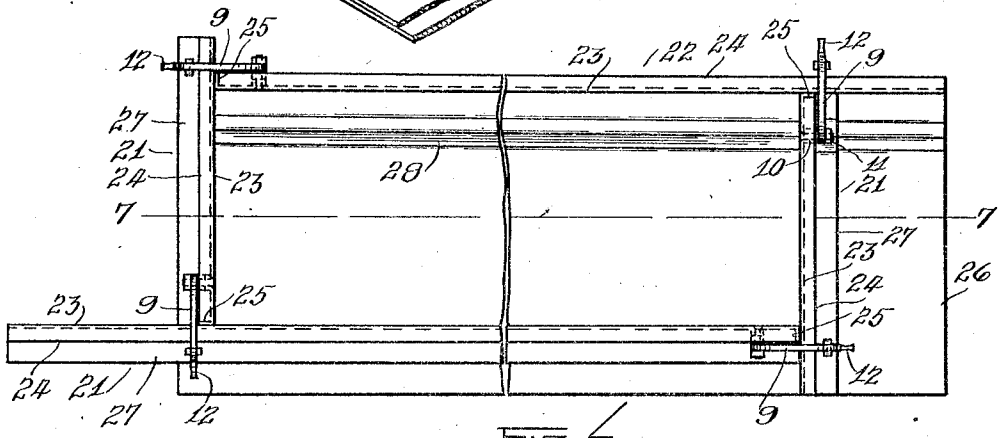


FIG. 6

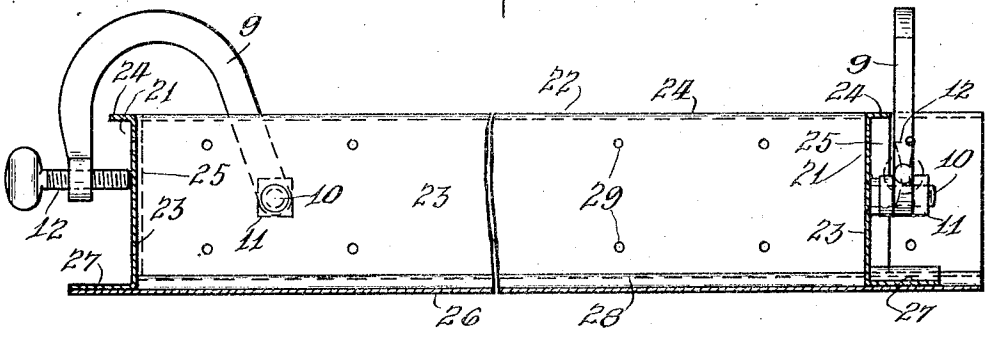


FIG. 7

INVENTOR.

Frank A. Pike

BY Thomas F. Gurney

ATTORNEY

Patented July 6, 1926. 1,591,558

UNITED STATES PATENT OFFICE.

FRANK A. PIKE, OF ROCHESTER, NEW YORK.

ADJUSTABLE CONCRETE FORM.

Application filed October 10, 1925. Serial No. 61,708.

The present invention relates to forms into which concrete is poured for giving definite shape to the articles being made, an object of the invention being to provide a device particularly adapted for placement on the tops of chimneys for forming concrete caps.

A further object of the invention is to provide an adjustable form for concrete chimney caps that is of simple, strong and inexpensive construction, and one that not only has a wide range of adjustment but is so constructed as to be readily assembled and disassembled and requiring the labor of but one man.

And, a still further object of the invention is to provide an adjustable form by means of which rectangular objects of various sizes may be made, such, for instance, as window sills, caps, steps, buttress blocks and the like.

To these and other ends the invention consists of a form built up of parts and combinations of parts as will be fully set forth in the following description and particularly defined in the appended claims.

The accompanying drawings illustrating the invention are as follows:

Figure 1 is a top plan view of a form for chimney caps and shows it placed upon a chimney, the latter being indicated in broken lines.

Fig. 2 is an enlarged vertical sectional detail on the line 2—2, Fig. 1, the chimney also being shown in section.

Fig. 3 is a perspective view of the form.

Fig. 4 is a vertical sectional view of a form for chimney caps but with the side frame members of modified construction.

Fig. 5 shows in perspective a fragmentary portion of one of the side frame members seen in Fig. 4.

Fig. 6 is a top plan view of a further modification of the invention.

Fig. 7 is a vertical sectional view on the line 7—7, Fig. 6.

And, Fig. 8 shows in perspective a fragmentary portion of the form seen in Figs. 6 and 7.

In the drawings similar reference numerals refer to similar parts throughout the several views.

In the form shown in Figs. 1, 2 and 3 there are four similar side members 1 arranged at right angles to each other and when thus assembled comprise a rectangular frame. These side frame members are, preferably, of sheet metal and shaped as angle bars, the horizontal portion 2 of each member being reinforced by a downwardly projecting flange 3 along its side edge and by a longitudinally extending upwardly pressed rib 4, while the vertical portion 5 is reinforced by an outwardly turned flange 6 along its upper edge and a similarly turned flange 7 along at least one end edge. The horizontal portion 2 of each side member 1 is cut back from one end, preferably the flanged end 7, a distance equal to a horizontal portion 2, and the lower edge of the vertical portion 5 projecting beyond the horizontal portion is grooved at 8 to receive the rib 4 of a transversely extending side member.

These side frame members 1 are so arranged relatively to each other that the cutaway end of each is slidable along the inner face of a respective transverse member, the end edge of the horizontal portion 2 engaging the flange 3 of the transverse member while the flanged end 7 abuts the vertical portion 5 of such member. The cutaway ends of opposite side members are diagonally opposed and it will be seen that, in adjusting the form for caps of various sizes, opposite side members are movable relatively toward and from each other and in opposite directions in planes parallel to each other, the form remaining rectangular in all positions of adjustment. Opposing side members are movable toward each other until their flanged edges 3 are in contact, and from each other a distance substantially equal to their length. Thus, the length of the side members 1 and the width of their horizontal portions 2 determine the limits of adjustment of the form.

Any suitable fastening devices may be employed for holding the side members of the form together. In this instance I provide each member 1 adjacent its flanged end 7 with a clamp comprising an arched bar 9 pivoted at one end on a stud 10 extending outwardly from the vertical portion 5 and threaded to receive a lock nut 11. Each such bar engages under a respective transverse side member 1 and along which the side member to which it is pivoted is adjustable, and at its free end is formed with a head through which is threaded a thumb screw 12, such screw being used to clamp the flanged end 7 of the member on which

the clamp is pivoted to the vertical portion 5 of such transverse member.

The form as hereinabove described is particularly adapted for making chimney caps and, when in use, is first adjusted so that the flanges 3 on the horizontal portions 2 of the side members engage the chimney wall 13 with the said horizontal portions substantially on a level with the top of the wall. As a means of supporting the form in such position while the concrete is being poured to form the cap 14 and until it has become set, each horizontal portion 2 is provided with a plurality of inwardly projecting lugs which rest upon the chimney wall. In this instance these lugs 15 are pivoted at 16 to the under face of the horizontal portion 2 and, when turned to operative position, project through openings 17 in the flange 3. When in inoperative position, to which the lugs are turned when the concrete has set and the form is being disassembled, one edge lies substantially flush with the inner face of the flange 3, and to facilitate turning of the lugs their inner ends are bent downwardly as at 18 to permit being tapped by a hammer or other suitable implement.

The chimney cap 14 surrounds the flue lining 19, which projects above the chimney wall 13, and overhangs such wall. The complete form, then, for moulding the cap comprises the side frame members 1 which form the outer wall and the bottom wall for the overhanging portion, the top surface of the chimney wall which forms the remainder of the bottom wall, and the flue lining 19 which forms the inner wall. The cap, it will be understood, will have a channel 20 along each side in its under face, formed by the ribs 4, the purpose of these channels being to provide a drip edge or edges on the under side of the cap. The purpose of pivoting the lugs 15 is to permit them to be swung clear of the chimney wall so that, when the form is being removed and taken apart, the side members 1 may be lowered in order that the ribs 4 will clear the channels formed in the bottom of the chimney cap.

For use in forming caps not requiring the drip edge, a form such as shown in Figs. 4 and 5 may be employed. In this instance the construction is the same as hereinabove described with the exception that the horizontal portion of each side frame member is not provided with a rib 4 and it is not necessary to pivot the lugs as the side members, when the form is taken down, are simply drawn outwardly from the cap after the clamps have been released. Thus the lugs 15^a, projecting inwardly from the horizontal portions 2^a are formed by pressing portions of the flanges 3^a upwardly into the plane of the horizontal portions.

Refer now to Figs. 6, 7 and 8 which show a modification of the invention used in forming various rectangular objects as hereinbefore set forth, and which is adapted to be placed upon any suitable support. This form, in any position of adjustment, is also rectangular and comprises three similar side members 21 and a fourth member 22. Each side frame member has a vertical portion 23, the four of which constitute the side wall of the form, and each such portion is preferably reinforced along its upper edge by an outwardly turned flange 24 and along one end edge by a similarly turned flange 25. The member 22 has a horizontal portion 26 which comprises the bottom wall of the form, and the three members 21 are provided with narrower horizontal bottom portions 27 which are turned outwardly and rest upon the bottom wall 26. In this modification the bottom wall of the member 22, only, projects beyond an end of its vertical portion 23 and there are no downwardly projecting flanges on any of the horizontal bottom portions. Also, the pivoted lugs 15, described with reference to Figs. 1, 2 and 3, and lugs 15^a, Figs. 4 and 5, are dispensed with.

The clamps at the four corners of the form and comprising the parts 9 and 12 are similar to those described with reference to the chimney cap form and are similarly mounted except that the arched bars 9 engage over instead of under their respective transverse side frame members.

In this modification each side frame member has one end abutting the inner face of the vertical portion 23 of a transverse member and its other end projecting beyond the vertical portion of the opposite transverse member. Also, in adjustment, opposing side members are moved toward and from each other and in opposite directions parallel to each other. In the form for chimney caps the inwardly turned bottom portions 2 form a marginal bottom wall, while in the modification of the invention just above described the horizontal portion 26 of one of the frame members forms the entire bottom wall and upon which the outwardly turned bottom portions 27 of the three side members 21 rest.

The form shown in Figs. 6, 7 and 8, if intended for use in making window sills, has means such as an upwardly pressed rib 28 in the bottom wall 26, such rib being parallel to and adjacent the vertical portion 23 of the side member carrying the bottom 26, the member 21 slidable along and extending transversely of the member 22 being suitably conformed to receive such rib and slide thereover, the purpose of the rib being to form a drip edge along one edge of the sill on its under side.

The vertical portions 23 of the members

21 and 22 are provided with perforations 29 for receiving nails which may be passed therethrough into the concrete to hold the frame members against vertical displacement should the form be supported upon an uneven surface, the nails being withdrawn when the form is removed.

It is believed that from the foregoing the construction and manner of using the forms are sufficiently clear to call for no further explanation.

What I claim is:

1. An adjustable concrete form comprising four side members arranged at right angles to each other, opposing members being movable toward and from each other and in opposite directions along parallel lines, and securing means pivoted to the outer face of each member and adapted to clamp one end thereof against the inner face of a side member extending transversely of the clamp carrying member.

2. An adjustable concrete form comprising four side members arranged at right angles to each other, opposing members being movable toward and from each other and in opposite directions along parallel planes, an arm pivoted to the outer face of each side member, and a clamping screw threaded in said arm, the clamp consisting of such arm and screw holding one end of the side member to which it is pivoted against the inner face of the side member along which the first named member is movable when adjusting the form.

3. A side member for a form of the character described comprising a vertical portion reinforced along its upper edge, a horizontal portion, and an upwardly pressed longitudinally extending rib on the horizontal portion.

4. A side member for a form of the character described comprising a vertical portion, a horizontal portion, and longitudinally extending means on the upper face of the horizontal portion for forming a drip edge along the under face of the article to be formed.

5. A side member for a form of the character described comprising a vertical portion and a horizontal portion, an outwardly turned flange along the upper edge and one end edge of the vertical portion, and a downwardly turned flange along the side edge of the horizontal portion, the flanged end of the vertical portion projecting beyond the horizontal portion.

6. A side member for a form of the character described comprising two portions at an angle to each other, a lug pivoted to one of said portions and adapted when moved to operative position to project beyond the free edge, and longitudinally extending means on the inner face of the lug carrying portion intermediate the lug and the juncture of said two portions for forming a drip edge along the under face of the article to be formed.

7. A side member for a form of the character described comprising a vertical portion, a horizontal portion, a flange projecting downwardly from the side edge of the horizontal portion and formed with an opening, a lug member pivoted to the under face of the horizontal portion, said lug extending through the said opening when moved to operative position, and longitudinally extending means on the upper face of the horizontal portion intermediate said lug and the juncture of the horizontal and vertical portions, for the purpose set forth.

8. In a form of the character described, four side members arranged at right angles to each other, each member comprising a vertical portion, a horizontal portion, an outwardly turned flange along the upper edge and one end edge of the vertical portion, and a downwardly turned flange along the side edge of the horizontal portion, the flanged end of each vertical portion projecting beyond its respective horizontal portion so as to engage over the horizontal portion of a transverse side member and abut the vertical portion thereof, and securing means pivoted to the outer face of each vertical portion and adapted to clamp the flanged end thereof against the inner face of the vertical portion which it abuts.

9. The combination, with a chimney wall and a flue lining projecting above the wall, of a cap form comprising four side members arranged at right angles to each other, each such member having a vertical portion and a horizontal portion with the inner edge of the latter engaging the chimney wall, means comprising pivoted lugs on said horizontal portions for supporting the side members upon the chimney wall, and means carried by the frame members for clamping such members together, one end of the vertical portion of each side member engaging over the horizontal portion of a transverse side member and abutting the vertical portion thereof.

10. The combination with a chimney wall and a flue lining projecting above the wall, of a cap form comprising four side members arranged at right angles to each other, each such member having a vertical portion, a horizontal portion on a level with the top of the chimney wall, an outwardly turned flange along the upper edge and one end edge of the vertical portion, and a downwardly turned flange with openings therein along the inner edge of the horizontal portion such flange engaging the chimney wall, means for supporting the side members comprising lugs pivoted to the under side of said horizontal portions and which when turned to oper-

ative position project through the said openings and rest upon the chimney wall and a clamp at each corner of the form for securing the side members together, the flanged end or each vertical portion engaging over the horizontal portion of a transverse side member and abutting the vertical portion thereof.

11. A form of the character described including two side members at right angles to each other and each having a vertical portion and a horizontal portion, one end of the vertical portion of one member engaging over the horizontal portion of the other member and abutting the inner face of the vertical portion thereof a clamping bar pivoted at one end on the outer face of the first named member's vertical portion adjacent said abutting end and a clamping screw threaded in the other end of said bar and adapted to screw against the outer face of the vertical portion of said second named member.

FRANK A. PIKE.